

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

ADDITIONAL INFORMATION

REQUEST FOR LETTERS OF INTEREST TO PERFORM ON-CALL CONTROL SURVEYS, DESIGN SURVEYS, AND LAND SURVEYS

Notice is hereby given that the Arkansas State Highway and Transportation Department (AHTD) is seeking letters of interest from professional land surveyors and consulting firms with a Professional Land Surveyor currently on staff certified to perform one or more of tasks required for Control Surveys, Design Surveys for highway location and design, and Land Surveys for the acquisition of property for highway rights of way on selected highway construction projects. Staking and monumenting of rights of way to AHTD specifications may also be required. Selection and certification is task specific. Therefore, a Consultant Surveyor shall be certified for each task or tasks that are to be performed. Some examples follow:

Control Surveys Tasks

- Static GPS
- Horizontal Traverses
 - EDM
 - RTK GPS
- Elevation Control
 - First and Second Order
 - 3-Wire
- Photogrammetric Mapping Targets
 - Level
 - RTK GPS

Roadway and Bridge Design Surveys Tasks

- Topography and Terrain Data Collection
- Field Data Processing
- Digital Terrain Models
- Hydrographic Surveys

Land Surveys Tasks

- Parcel Surveys
- Right of Way Plans
- Right of Way Staking
- Right of Way Monumenting and Final Plats

All survey work shall be performed according to the current Arkansas minimum standards and regulations governing the practice of Registered Professional Land Surveyors, as well as the requirements of the AHTD as specified in the most current version of the AHTD *Requirements and Procedures for Design Surveys and Land Surveys*. All survey work shall be performed

under the supervision of the Professional Land Surveyor registered in Arkansas and approved by the AHTD to perform the task(s) specified.

The AHTD also has requirements for software and hardware to be used on projects for the AHTD. Model numbers for the equipment for the total station, data collection equipment, and automatic levels, etc., need to be listed. The information that follows gives details of what equipment and software is required to perform design surveys and/or land surveys for the AHTD.

It is required that all design and land survey field data collection shall be performed using the AASHTOWare® SDMS® (Survey Data Management System) Collector software and according to current AHTD data collection requirements. It is also required that all field data be processed using the AASHTOWare SDMS Processor software. The software for field data collection and processing is furnished under the site license held by the AHTD from AASHTO. All field, calculated, and control data shall be submitted in the appropriate AASHTO SDMS formats. This includes the unedited field files (.PRJ); edited files (.EDI); control files (.CTL); points and chains files (.PAC); and, alignment files (.ALI).

Post processing of data, if part of the scope of work for a project, requires using the AASHTOWare SDMS Processor software. This software will also be furnished by the AHTD.

Digital Terrain Modeling (DTM), final design survey maps, land survey work sheets and final plats, if part of the scope of work, shall be submitted using Bentley Systems, Inc., Bentley Inroads, Version 8.9/SP2 and Microstation Version 8.5 or higher. The minimum modules required are Inroads Survey (for SDMS data import) and Inroads Site (for geometry). The Inroads Software shall use Microstation as the CAD platform. You are responsible for licensing the required CAD software products and for any and all training required in their use.

Control surveys, design surveys and land surveys require direct oversight by the Professional Surveyor(s), registered in Arkansas, who is designated as the Surveyor(s) who will be in responsible charge and who has been approved by the Surveys Division. Requirements specific to each type survey are as follows.

CONTROL SURVEYS

Control surveys consist of: static GPS; horizontal traverses; elevation control by three wire level techniques; and aerial photography targeting control for Photogrammetry. The task that may be assigned will be based on the Consultant Surveyor's previous experience and expertise shown in performing the task or tasks to be performed. The proper equipment meeting AHTD requirements must be used at all times. Currently, this requires dual frequency geodetic quality receivers and antennae for static GPS. The equipment shall be able to produce a RINEX raw data file. Dual frequency geodetic quality Trimble receivers, antennae, and data-collectors are required for RTK GPS. The surveyor shall utilize the AHTD.FCL feature code file. Trimble Geomatics Office software is required for any GPS post processing functions. The GPS antennae for static and RTK surveys shall have been tested and phase-center models produced by the National Geodetic Survey (NGS).

DESIGN SURVEYS

Design surveys are currently broken down into four (4) separate tasks: (1) Topography and terrain data collection; (2) Field data processing; (3) CAD development of digital terrain models and topography; and, (4) Hydrographic surveys data collection. Design surveys scopes of work currently pertain to Task 1 and Task 4.

It is required that all design survey field data collection shall be performed using the AASHTOWare SDMS (Survey Data Management System) Collector software furnished under the site license held by the AHTD from AASHTO, and according to current AHTD data collection requirements. All original field data shall be submitted in the AASHTO SDMS project (PRJ) file format. No editing of the original field data file is allowed. Edited files shall be saved and furnished with the extension “.EDI”.

Post processing of the collected data may be added in future scopes of work if a Surveying Consultant shows they have become adequately familiar with the AHTD surveying procedures and requirements. Post processing, if it is included in a scope of work, will require the use of the current AASHTO SDMS Processor. Processed data must be furnished in the Points and Chains (PAC) file format. The entire project, “field to finish”, shall be archived and furnished to the AHTD. The software will be furnished by the AHTD.

The development of Digital Terrain Models (DTMs) and drafting related to design surveys may also be added to future scopes of work if the surveying consultant shows proficiency in the other phases of the survey work as explained above. DTMs and CAD are done using the Bentley Systems, Inc., Inroads software. Graphics, topography, and DTM information, if part of a future scope of work, must be provided in the Bentley Microstation (DGN) and InRoads (ALG & DTM) formats.

LAND SURVEYS

Land surveying is broken down into four (4) tasks: (1) field reconnaissance/data collection/worksheet generation; (2) right of way plan development; (3) right of way staking; and, (4) right of way monumentation and final plats. Once a Consultant Surveyor becomes certified to perform Task 1, they can also work toward becoming qualified, and ultimately certified, for any or all the other tasks listed. Obtaining and maintaining certification for any or all tasks depends on performance of the current project task assigned.

Land survey work requires the Consultant Surveyor to collect field information using AASHTOWare SDMS Collector and provided in the SDMS project (PRJ) format. No editing of the original field data file is allowed. Edited project files shall be saved and furnished with the extension “.EDI”. Field data shall be processed using SDMS Processor. The processed data must be furnished in the Points and Chains (PAC) file format. The entire project, “field to finish”, shall be archived and furnished to the AHTD for review. If this work is found acceptable, a project file set performed previously by the Surveys Division will be sent to you to process and prepare the required CAD drawings using AHTD requirements, feature tables, and cell libraries. Performance on this project will then determine whether your firm will be approved to perform specified land survey tasks.

Certified plats of the land survey information furnished to the AHTD shall meet current State and AHTD requirements for land surveys. The plats shall be furnished in the Bentley Microstation

and InRoads formats. Both graphic and coordinate information is required. Land Surveys to be developed using Bentley Systems, Inc., Inroads software, Version 8.9/SP2 and Microstation Version 8.5 or higher. The minimum modules required are Inroads Survey (for SDMS data import) and Inroads Site (for geometry). The Inroads Software shall use Microstation as the CAD platform.

Letters of Interest Requirements

Please submit responses with information that includes the following:

- General information of the firm's experience in performing design and/or land surveys.
- Information related to being a Disadvantaged Business Enterprise (DBE), a minority owned business, or female owned business, if applicable.
- Form SF-330, Parts I and II with a resume' of responsible personnel who would work on survey contracts.
- A list of equipment available for use in performing design surveys and land surveys.
- Regions of the state in which the firm prefers to work, if applicable.

Inquiries regarding this request should be directed to:

Kit Carson, PE, PS
Division Head, Surveys
Arkansas State Highway and Transportation Department
P. O. Box 2261, Little Rock, AR 72203
Phone: (501) 569-2341 Fax: (501) 569-2344
Kit.Carson@arkansashighways.com

Becoming selected to perform on-call services in control surveys, design surveys, and land surveys does not guarantee projects will be assigned to a Consultant Surveyor. When the workload of the AHTD requires, selected firms will be furnished with a scope of work for each specific project and requested to submit a proposal for performing the required surveys.

The selected Consultant Surveyor must submit an audit report including a report on internal control and compliance. The report shall meet the reporting guidelines provided in the applicable financial audit standards sections of the *General Accepted Government Auditing Standards (GAGAS)*, and shall include **positive assurance** that all costs included in the recommended rate are allowed by **48 CFR Part 31**. An indirect cost rate, set by the audit, must be approved by the AHTD prior to executing the contract.

The AHTD complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, the AHTD does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in the Department's programs and activities, as well as the AHTD's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the AHTD's nondiscrimination policies may be directed to James B. Moore, Jr., Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: james.moore@arkansashighways.com. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.